

BILL NO. 03-31
As Amended

COUNTY COUNCIL
OF
HARFORD COUNTY, MARYLAND

BILL NO. 03-31 (As Amended)

Introduced by Council Member Miller

Legislative Day No. 03-19 Date July 8, 2003

AN ACT to repeal and reenact, with amendments, Chapter 216, Sewage Disposal Systems, Private, of the Harford County Code, as amended; to provide for the regulation of private waste disposal systems; to require a minimum reserve lot area for waste disposal based on public sewer priority; to provide for design and installation standards for systems; to provide for variances in certain design standards; to provide for penalties for violation of this Chapter; and generally relating to private waste disposal systems.

By the Council, July 8, 2003

Introduced, read first time, ordered posted and public hearing scheduled

on: August 5, 2003

at: 6:30 p.m.

By Order: Barbara J. Ruth, Council Administrator

PUBLIC HEARING

Having been posted and notice of time and place of hearing and title of Bill having been published according to the Charter, a public hearing was held on August 5, 2003, and concluded on, August 5, 2003.

Barbara J. Ruth, Council Administrator

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW. [Brackets] indicate matter deleted from existing law. Underlining indicates language added to Bill by amendment. Language lined through indicates matter stricken out of Bill by amendment.

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Section 1. Be It Enacted By The County Council of Harford County, Maryland that Chapter 216, Sewage Disposal Systems, Private, of the Harford County Code, as amended, be and it is hereby repealed and reenacted, with amendments, all to read as follows:

Chapter 216. Sewage Disposal Systems, Private

Article I. General Provisions

§ 216-1. Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

~~ADVANCED PRETREATMENT TREATMENT USED BEFORE DISCHARGE TO THE DISPOSAL SYSTEM, DESIGNED TO ATTENUATE SEWAGE BEYOND THE LEVEL TYPICAL OF A SEPTIC TANK.~~

APPROVING AUTHORITY - The Health Officer of Harford County or [a duly appointed representative as designated by the State Secretary of Health and Mental Hygiene] THE HEALTH OFFICER'S DESIGNEE.

COMAR 26.04.02.01 - DEFINITIONS ARE INCORPORATED HEREIN BY REFERENCE.

§ 216-2. Installation required in absence of public sanitary sewer.

All persons, firms or corporations who construct dwellings, stores, offices, factories or any other buildings which will have human occupancy or any additions to existing buildings shall, in the absence of a public sanitary sewer, be required to install OR TO HAVE INSTALLED a private waste disposal system or add to the existing system in accordance with the following specifications, as stated herein, [before said structure shall be occupied] PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT.

§ 216-3. Sanitary construction permit required.

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On and after the effective date of this chapter, any person planning to install a private waste disposal system or make additions to or alterations to an existing system shall obtain a sanitary construction permit before starting work on such system from the approving authority. THE SANITARY CONSTRUCTION PERMIT SHALL BE ISSUED TO THE LICENSED SEPTIC INSTALLER RESPONSIBLE FOR THE WORK ON THE DISPOSAL SYSTEM. [The length of time a permit is to be effective shall be specified in the permit and shall not exceed one (1) year. Said permit shall become inoperative at the expiration of the period of time prescribed, without notice to that effect having been given by the approving authority.]

§ 216-4. Permit requirements.

To obtain such a permit, the [owner of the property or his agent] LICENSED SEPTIC INSTALLER must provide information to the approving authority as to the location of the property, size of the lot, plot plan, nature and size of the building, results of soil percolation tests when necessary and location of existing or planned water supplies or systems on an application form obtainable from the Health Department.

§ 216-5. Refusal of permit.

The approving authority shall have the right to refuse any permit for the installation of a private sewage disposal system if the plans, soil percolation test or other such pertinent data are not in accordance with the requirements as herein set forth. THE APPROVING AUTHORITY MAY REFUSE TO ISSUE ANY PERMIT TO A LICENSED SEPTIC INSTALLER IF THAT INSTALLER'S WORK ON OTHER DISPOSAL SYSTEMS HAS BEEN DEEMED UNSATISFACTORY.

§ 216-6. Effect of availability of public sewers.

1 No private waste disposal system shall be constructed on a property reasonably accessible to
2 an existing public sanitary sewer. A private waste disposal system found to be malfunctioning where
3 public sanitary sewer is available shall be abandoned and the building's sewer connected to the
4 public sanitary sewer. A PRIVATE WASTE DISPOSAL SYSTEM REQUIRED TO BE
5 ABANDONED SHALL BE PROPERLY ABANDONED IN COMPLIANCE WITH THE
6 PROCEDURES PROMULGATED BY THE HEALTH DEPARTMENT.

7 **§ 216-7. Inspections.**

8 All new work and such portions of existing systems as may be affected by new work or any
9 changes shall be inspected by the approving authority or his representative to ensure compliance with
10 all the requirements of this regulation and to assure that the installation and construction of the
11 disposal system is in accordance with the approved plans. Advance notice is required in order to
12 receive the necessary inspection, and the inspection shall be made within [twenty-four (24)] 24 hours
13 during the normal workweek UNLESS OTHERWISE NOTED ON THE SANITARY
14 CONSTRUCTION PERMIT.

15 **§ 216-8. Backfilling.**

16 Upon final inspection and approval, each person shall be responsible to backfill the private
17 sewage disposal system within [seventy-two (72)] 24 hours. No system will be backfilled or covered
18 until the approving authority has approved the system. Any part of an installation which has been
19 covered prior to final approval shall be uncovered upon order of the approving authority.

20 **§ 216-9. Performance of work.**

21 All new work and such portions of existing systems as may be affected by new work or any
22 changes or additions shall be performed by a Harford County MASTER licensed plumber and/or a

[bonded drainlayer] LICENSED SEPTIC INSTALLER. A homeowner may be permitted to do his own work, according to the requirements of this chapter, at the private home where he resides or plans to reside, provided that such work shall be inspected and approved by the approving authority. The approving authority [shall] MAY refuse to issue permits [and conduct inspections] for any Harford County MASTER licensed plumber, [bonded drainlayer] LICENSED SEPTIC INSTALLER or owner, who has [willfully or knowingly] violated the provisions of this chapter until the violation has been corrected or resolved.

§ 216-10. Failure to complete work.

Any person failing to complete the construction of a private waste disposal system to the satisfaction of the approving authority shall be liable for the penalty outlined in § ~~216-28~~ 216-26 of this chapter.

§ 216-11. Responsibility for compliance.

Building contractors, [waste disposal system contractors] LICENSED SEPTIC INSTALLERS and plumbers shall be jointly and severally responsible for compliance with these regulations with any person for whom such installations are being made.

[§ 216-12. Applicability.

The basic requirements of this chapter are to serve a single-family dwelling. Multifamily units, commercial units and other nondomestic unit requirements are calculated individually, based primarily on water usage and other requirements of this chapter. The lot areas delineated in this chapter are not applicable to commercial lots, multifamily units and other nondomestic units.

§ 216-13. Equipment constituting system.

Where a private waste disposal system is to be used, the system shall consist of a septic tank

(or other private disposal system as may be approved by the approving authority) with the effluent discharging into a subsurface tile drainage field, deep trench or seepage pit (dry well) or such other system approved by the approving authority.]

§ 216-[14]12. Responsibility of property owner.

After the initial installation of a private individual waste disposal system, the property owner shall be responsible for maintenance of the system. When a private waste disposal system is found to be malfunctioning and public sewerage is not available, the property owner or his agent shall, upon notification from the approving authority, be responsible for all required corrective procedures and repairs to the system within a time period specified by the approving authority. In cases where waste disposal systems other than septic tank systems are installed, a service [policy] CONTRACT shall be required by the approving authority and A SERVICE CONTRACT SHALL BE MAINTAINED [shall be] for the life of the system. The requirements shall be set according to the system and/or model to be used.

§ 216-[15]13. Prohibited installations.

Private waste disposal systems [will] SHALL not be installed in [unsettled filled ground, as determined by the approving authority, in]FILL MATERIAL, one-hundred-year-floodplain areas or on slopes in excess of a grade of [twenty percent (20%)] 20%. No portion of a private waste disposal system will be covered by driveways, swimming pools, building additions or any other permanent structures, except that sewer lines of approved materials may be placed under driveways. (See § 216-20A.)

§ 216-[16]14. Disclaimer.

Due to the variability of soil conditions, water tables and individual use experience, approval

of a private waste disposal system does not in any manner give or imply a guaranty that the system will operate satisfactorily for any set period of time.

§ 216-[17]15. Right of entry; warrants; inspections.

Right of entry, search warrants or access warrants for the inspection of any premises or properties shall be conducted in accordance with §§ 1-18 and 1-19 of Chapter 1 of the Harford County Code, as amended.

Article II. Design Standards.

§ 216-[18]16. General design of system.

A. [Design. The design of private (individual) waste disposal systems shall take into consideration the location with respect to private and municipal potable water supply wells and water systems or any other source of water supply, topography, water table, soil characteristics, available area and maximum occupancy of the building. There shall be provision to accommodate adequate replacement systems until public sanitary facilities are available. See § 216-21H.

B.] HORIZONTAL SEPARATION DISTANCES.

(1) THE FOLLOWING HORIZONTAL SEPARATION DISTANCES SHALL BE MAINTAINED BETWEEN THE ON-SITE DISPOSAL SYSTEM PLUS RECOVERY AREA AND THE FEATURES LISTED ALTHOUGH GREATER DISTANCES MAY BE REQUIRED AT THE DISCRETION OF THE APPROVING AUTHORITY:

| FEATURE | SEPARATION DISTANCE |
|---------------------------------|---------------------|
| (I) STEEP SLOPES (>25 PERCENT) | 25 FEET |
| (II) DRAINAGE AND SPRING SEEPS | 25 FEET |
| (III) DRAINAGE WAYS AND GULLIES | 25 FEET |

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|----|--------|--|----------|
| 1 | (IV) | FLOODPLAIN SOILS | 25 FEET |
| 2 | (V) | ROCK OUTCROPS | 25 FEET |
| 3 | (VI) | ELEVATION OF SPILLWAY CREST | |
| 4 | | WATER LEVEL IN A WATER SUPPLY RESERVOIR | 300 FEET |
| 5 | (VII) | STREAM BANK 3,000 FEET OR LESS UPSTREAM | |
| 6 | | FROM A WATER INTAKE ON A WATER SUPPLY | |
| 7 | | RESERVOIR OR INTAKE ON A STREAM USED AS | |
| 8 | | A POTABLE WATER SUPPLY | 200 FEET |
| 9 | (VIII) | STREAM BANK GREATER THAN 3,000 FEET | |
| 10 | | UPSTREAM FROM A WATER INTAKE ON A WATER | |
| 11 | | SUPPLY RESERVOIR OR INTAKE ON A STREAM | |
| 12 | | USED AS A POTABLE WATER SUPPLY | 100 FEET |
| 13 | (IX) | WATER BODIES NOT SERVING AS | |
| 14 | | POTABLE WATER SUPPLIES | 100 FEET |
| 15 | (X) | WATER WELL SYSTEM IN UNCONFINED AQUIFERS | 100 FEET |
| 16 | (XI) | WATER WELL SYSTEM IN CONFINED AQUIFERS | 50 FEET |
| 17 | (2) | A LOT LOCATED WITHIN 2,500 FEET OF THE NORMAL WATER | |
| 18 | | LEVEL OF EXISTING OR PROPOSED WATER SUPPLY RESERVOIRS, MEASURED | |
| 19 | | HORIZONTALLY OR WITHIN A 5,000-FOOT RADIUS UPSTREAM FROM THE WATER | |
| 20 | | INTAKE ON STREAMS USED AS POTABLE WATER SUPPLY SOURCES AND A 5,000- | |
| 21 | | FOOT RADIUS OF WATER INTAKE LOCATED WITHIN A RESERVOIR SHALL HAVE AN | |
| 22 | | AREA OF NOT LESS THAN 2 ACRES WITH A MINIMUM WIDTH OF 175 FEET. AN ON- | |

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1 SITE SEWAGE DISPOSAL SYSTEM MAY NOT BE LOCATED WITHIN 300 FEET,
2 MEASURED HORIZONTALLY, OF THE NORMAL HIGH WATER LEVEL OF A WATER
3 SUPPLY RESERVOIR. NORMAL WATER LEVEL SHALL BE THE ELEVATION OF THE
4 SPILLWAY CREST. THESE LIMITATIONS DO NOT APPLY TO AREAS BELOW THE DAM
5 FORMING THE RESERVOIR.

6 B. Type of system. The type of private waste disposal system to be installed shall be
7 determined on the basis of soil permeability, topography and water tables.

8 C. Sanitary sewage. The private waste disposal system shall be designed to receive all
9 sanitary sewage, including laundry waste, from the building. Kitchen disposal systems (garbage
10 grinders) will not be permitted to discharge into a private waste disposal system. Drainage from
11 basement floor, footings, water conditioners or roof gutters shall not enter the waste disposal system.

12 D. [Discharge] DESIGN. The private waste disposal system shall consist of a septic
13 tank, ADVANCED PRETREATMENT DEVICE or other approved treatment device, discharging
14 VIA GRAVITY OR PUMP SYSTEM into AN APPROVED SYSTEM [either a shallow subsurface
15 disposal field, deep trench, one (1) or more seepage pits or into a combination of them or such other
16 approved system].

17 E. Grease [traps] INTERCEPTOR. Grease [traps] INTERCEPTORS are not necessary
18 for installations at private dwellings. If included in the design of the private waste disposal system, it
19 shall be installed on the kitchen line, outside of the building, before entering the building sewer
20 leading to the treatment device. The trap shall be provided with a removable cover to permit access
21 for removing the accumulated grease. The minimum liquid capacity shall BE [not be less than thirty
22 (30)] 1,000 gallons.

§ 216-[19]17. Location of system.

A. Location. The initial private waste disposal system and replacement system shall be located IN THE HIGHEST CONTOURS OF THE SEPTIC RESERVE AREA UNLESS OTHERWISE [as] specified by the Health Department. [The system is normally a gravity system located on the lower side of the lot in the area where the percolation test was taken and approved by the Health Department.]

B. Distances. Table I provides for the minimum distances that shall be observed in locating the various components of the waste disposal system.

C. DESIGN. THE DESIGN OF PRIVATE INDIVIDUAL WASTE DISPOSAL SYSTEMS SHALL TAKE INTO CONSIDERATION THE LOCATION WITH RESPECT TO PRIVATE AND MUNICIPAL POTABLE WATER SUPPLY WELLS AND WATER SYSTEMS OR ANY OTHER SOURCE OF WATER SUPPLY, TOPOGRAPHY, WATER TABLE, SOIL CHARACTERISTICS, AVAILABLE AREA AND MAXIMUM OCCUPANCY OF THE BUILDING. THERE SHALL BE PROVISIONS TO ACCOMMODATE ADEQUATE REPLACEMENT SYSTEMS UNTIL PUBLIC SANITARY FACILITIES ARE AVAILABLE.
(SEE § 216-20.)

§ 216-[20]18. Building sewer.

A. The building sewer which extends from approximately [five (5)] 5 feet beyond the foundation wall shall be connected to the treatment device by [cast-iron pipe or] Schedule 40 or SDR #35 plastic pipe OR OTHER APPROVED MATERIAL, which shall be a minimum of [four (4)] 4 inches in diameter.

B. The slope of the building sewer [ten (10)] 10 feet preceding the treatment device shall

1 not exceed one-half [(1/2)] inch per foot.

2 C. The building sewer is to be [cast-iron pipe or] Schedule 40 OR SDR # 35 plastic pipe
3 OR OTHER APPROVED MATERIAL. All joints are to be sealed in an approved method as
4 prescribed within the Plumbing Code.

5 D. The building sewer should have a straight alignment, and bends are to be avoided
6 wherever possible. Change in direction, horizontal or vertical, shall be made by use of long-radius
7 one-fourth, one-eighth or one-sixteenth bends or Y-branches.

8 E. CLEANOUTS. [Where the building sewer is greater than seventy-five (75) feet in
9 horizontal drainage, a cleanout shall be required.]

10 (1) WHERE THE BUILDING SEWER IS GREATER THAN 75 FEET IN
11 HORIZONTAL DRAINAGE, A CLEANOUT SHALL BE REQUIRED.

12 [F.](2) Cleanouts shall be installed at each change of direction of the building sewer
13 greater than [forty-five degrees (45°)] 45°.

14 [G.](3) Cleanouts, when installed on an underground drain, shall be extended to or
15 above the finished grade on either a plane of [forty-five degrees (45°) or ninety degrees (90°)] 45°
16 OR 90°.

17 [H.](4) [Cast-iron] SCHEDULE 40 OR SDR # 35 PLASTIC pipe or approved plastic
18 pipe shall be used for a cleanout pipe of the same nominal size in the drainage system. Cleanout
19 plugs shall be of brass or approved plastic.

20 [I.]F. The building sewer shall in all cases be below the water supply line as required in the
21 Plumbing Code.

22 **§ 216-[21]19. Percolation test.**

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A. Percolation tests are required to determine the absorptive capacity of the soil. All percolation tests shall be performed under the supervision of the Health Department on all lots where a private waste disposal system is required. Percolation tests will be conducted in the area as designated by the approving authority. Tests shall be made in sufficient number and at such locations to assure a reliable determination of subsurface conditions.

B. When shallow subsurface irrigation (drainfield) is contemplated, [one (1)] 1 test hole or such additional test holes in numbers and locations as may be required to assure reliable determination of subsurface conditions shall be prepared as follows:

(1) The test holes shall be prepared by digging two-foot-square holes [two (2)] 2 feet in depth. At the time of conducting the percolation tests, a hole [one (1)] 1 foot square by [one (1)] 1 foot depth shall be prepared within the previously dug two-foot-square hole. Upon completion of the percolation test, the soil will be checked to a depth of at least [four (4)] 4 feet below the proposed system to determine the presence of water tables and the depth of porous soil.

(2) When a deep subsurface disposal system, (deep trench or seepage pits) is contemplated, [one (1)] 1 test hole or such additional test holes in numbers and locations as may be required to assure reliable determination of subsurface conditions shall be prepared as follows: The test holes shall be prepared of such a size as to permit a man to enter the pit with a reasonable degree of safety. The depth of the test pit shall be sufficient to reach porous soil. In the bottom of this pit a one-foot square hole [one (1)] 1 foot deep shall be prepared. Upon completion of the test, further excavation shall be required to an approximate depth of [four (4)] 4 feet below the proposed system to determine the presence of the water table and the depth of porous soil. The bottom of the seepage pit or trench shall be [four (4)] 4 feet above the established water table. Only the porous absorption

1 area of the test pit shall be considered in calculating the size of the system to be installed.

2 C. Soil tests.

3 (1) A soil test consists of a two-inch drop of water level. The first inch, which is
4 considered the presoaking time, shall not exceed [twenty (20)] 20 minutes.

5 (2) The time taken for the second one-inch drop is the recorded percolation test
6 and is used in calculating the amount of square feet of absorption area that shall be required per [one
7 hundred (100)] 100 gallons of sewage effluent to be disposed. The second one-inch drop shall not
8 exceed [thirty (30)] 30 minutes, except that when using innovative and alternative systems the
9 percolation rate may be greater.

10 (3) The satisfactory soil test includes the following considerations: rate of water
11 absorption, usable area, other nearby failing percolation tests, slope, size of initial system necessary,
12 sufficient area for replacement systems, failing private systems in the area and other related factors.
13 The approving authority ~~may~~ SHALL require that soil tests be conducted during certain periods of
14 the year when moderate to severe conditions are expected according to the Harford County Soil
15 Survey, Maps and Interpretations as prepared by the United States Department of Agriculture
16 NATURAL RESOURCES [Soil] Conservation Service OR THE HARFORD COUNTY HEALTH
17 DEPARTMENT EXPERIENCE.

18 D. Percolation tests may be generally considered invalid at any time when the approving
19 authority has knowledge which indicates the test results are no longer accurate or test procedures
20 have been altered sufficiently to render a significant change in the results. Additional percolation
21 tests may be required.

22 E. After thorough soil testing of a parcel of ground and on finding the soil unsuitable for

a private waste disposal system, the approving authority may consider such a parcel unsuitable for a private waste disposal system and may refuse to conduct additional soil tests.

F. Effluent seepage area requirements. The total seepage area required shall be governed by the future availability of public sewerage. In the absence of public sanitary facilities and with favorable soil conditions, the following minimum effluent seepage areas will be required to be reserved for the use of the initial private waste disposal system and for subsequent expansion of the system should expansion prove necessary.

Minimum Area of

Lot Reserved for

Waste Disposal

(square feet)

Public Sewer Priority

10,000 (original system plus

Immediate -- 10 years

space for ~~correction~~ 2 CORRECTIONS)

[40,000] 20,000 (original system plus

No planned service

space for [3] 2 or more replacement

systems)

{Conservation development,

{No planned service}

or lot pursuant to purchase of

development rights program}

~~10,000 (ORIGINAL SYSTEM WITH NO PLANNED SERVICE~~

~~PRETREATMENT SYSTEM WITH 2 OR~~

~~MORE REPLACEMENT SYSTEMS WITH~~

APPROVAL OF HEALTH DEPARTMENT)

Minimum Area {Minimum Effective}

Reserved for {Side Wall}

Waste Disposal **PERC Rate***** **Slope** {Absorption Area}

~~{10,000 sq. ft. 2-10 min. ≤0-15% 6 square feet~~

~~20,000 sq. ft. 11-20 min. ≤15% N/A~~

~~30,000 sq. ft. 21-30 min. ≤20% N/A}~~

~~40,000 SQ. FT. 11-20 MIN. ≤20 %~~

10,000 SQ. FT. 2-15 MIN. ≤20% BASED ON PERCOLATION TESTS

15,000 SQ. FT. 16-30 MIN. ≤20% BASED ON PERCOLATION TESTS

***System may be approved with greater than 30 minute rates provided the system is approved by the Maryland Department of the Environment (MDE) for the subdivision of land.

(1) The reserve area requirement indicated above is the minimum waste disposal area required. The minimum area may be greater if the area cannot support the initial disposal system and three recovery areas. At the time the plat is recorded, the disposal area required shall be based on a four bedroom dwelling. A minimum of three systems (initial and two recovery) or 10,000 sq. ft., whichever is greater, must be available on the lot.

(2) The off-site easement reserve area, if necessary, must be located adjacent to the lot or reasonably accessible to the lot for which the easement is established to serve, and it must be surrounded by a 15 foot construction or buffer easement.

(3) The corners of the septic reserve areas must be staked prior to PERC testing.

(4) A minimum of 2 test pits must be dug in the initial 10,000 square feet of

reserve area which is to be established on the lot. The Health Department may require additional test pits for a site to assure a reliable determination of subsurface conditions. A minimum of 2 test pits is required in the remainder or off-site easement reserve area. All PERC test holes are to be field located by an engineer/surveyor and submitted on a sealed (signed) plat.

(5) Preliminary PERC test results will be required for all moderate to severe rated soils. A minimum of one satisfactory preliminary PERC test per reserve area is required, as permitted by COMAR.

(6) The initial system shall be installed on the highest contour(s) of the disposal area unless an alternate site is approved, in writing, by the Health Department prior to construction.

(7) No grading is permitted in the septic reserve area without written approval of the Health Department, and until all necessary permits are approved by the Department of Public Works, Sediment Control Division.

(8) Unless previously subject to an easement pursuant to the county's purchase of development rights program, the remaining land must have a restrictive covenant placed upon it to prevent additional or future development.}

§ 216-[22]20. Septic Tanks

A. No septic tank shall serve more than [one (1)] 1 single-family dwelling or building for commercial use unless authorized by the Health Department.

B. Capacity. The capacity of the septic tank shall be in accordance with Table II.

C. [Length. Septic tanks up to one thousand (1,000) gallons' capacity shall be twice as long as they are wide. Larger tanks may be more than twice as long as wide and shall be circular in shape.] SEPTIC TANKS SHALL HAVE 2 COMPARTMENTS OR CONSIST OF 2 TANKS IN

1 SERIES.

2 [D. Depth. Minimum liquid depth for any size shall be forty-eight (48) inches. The space
3 between the fluid level and the top of the tank shall be at least eight (8) inches.]

4 [E]D. Construction. Septic tanks shall be constructed of corrosion-resistant materials AND
5 BE CONSTRUCTED IN A MANNER ACCEPTABLE TO THE APPROVING AUTHORITY.
6 DEPENDING UPON INDIVIDUAL SITE CONDITIONS, TOP SEAM TANKS MAY BE
7 REQUIRED.

8 [F. Steel tanks shall meet the United States Department of Commerce Commercial
9 Standard 177-51. The metal used in steel tanks shall not be less than fourteen-gauge for steel tanks
10 of one thousand (1,000) gallons' capacity or less. They shall be coated inside and outside with
11 asphalt coating or other acceptable materials.

12 G. Precast tanks shall be of vibrated reinforced concrete with a minimum wall thickness
13 of three (3) inches.]

14 [H]E. Manholes. [The inlet compartment must be provided with a manhole which shall be
15 at least twenty (20) inches square, with the opening to expose at least six (6) inches inside the inlet
16 baffle. Where removable slabs are provided on precast concrete tanks, the provision for installing a
17 six-inch pipe to grade level shall prevail.] THE TANK MUST BE PROVIDED WITH A MINIMUM
18 OF ONE MANHOLE WHICH SHALL BE AT LEAST 20 INCHES SQUARE OR IN DIAMETER
19 WITH THE OPENING EXPOSING EACH COMPARTMENT OR TWO MANHOLES, ONE
20 OVER EACH COMPARTMENT. RISERS ARE TO BE INSTALLED OVER EACH MANHOLE
21 TO THE GROUND SURFACE AND SHALL BE WATER TIGHT.

22 [I]F. Baffles. Baffles shall be installed [no less than eight (8) inches from] ON the [end

walls] INLET AND OUTLET, SO AS NOT TO RESTRICT THE FLOW, and shall extend to at least [six (6)] 6 inches above flow line. The inlet baffles shall extend [twelve (12)] 12 inches below the flow line and the outlet [fifteen (15)] 15 to [eighteen (18)] 18 inches below the flow line. On precast or poured concrete tanks, baffles shall be of [six-inch cast-iron sanitary tees] ~~or~~ precast or poured reinforced concrete OR PLASTIC.

[J]G. Invert. The invert of the inlet pipe shall be [three (3)] 3 inches higher than the invert of the outlet pipe.

[K]H. Septic tank standpipe. The septic tank standpipe will be inserted in the hole provided in the septic tank and extend to the surface of the ground as represented by the final grade. The standpipe extension will be [six-inch steel, cast-iron or] approved plastic pipe OR OTHER APPROVED MATERIAL, with a tight-fitting cap.

[L]I. Installation. The septic tank shall be installed in such a manner that the top shall not be more than [twenty-four (24)] 24 inches below the finished grade. Plumbing elevations must be carefully planned to fulfill this requirement.

[M]J. The septic tank shall be [set level and filled with water, or the void space around the tanks shall be compacted with fill] INSTALLED IN A MANNER to prevent [the tank from floating] FLOTATION.

[N]K. Alterations or changes in septic tank construction shall be approved by the approving authority.

[O]L. All voids, joints and openings shall be properly sealed to make the septic tank watertight prior to final inspection.

§ 216-[23]21. Distribution box.

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A. A distribution box or boxes shall be required for all [trench-type] GRAVITY FED FLOW systems. [, shallow or deep, and/or when two (2) or more seepage pits (dry wells) are installed.]

B. Locations. The distribution box shall be located on solid ground at least [five (5)] 5 feet from the septic tank and minimum of [six (6)] 5 feet from any [seepage area.] ABSORPTION SYSTEM.

C. Construction. The distribution box shall be of watertight construction [from either brick, concrete (formed) or concrete block (parged) with a removable top.] AND MUST BE CONSTRUCTED IN A MANNER ACCEPTABLE TO THE APPROVING AUTHORITY.

D. Invert level. The invert of the inlet pipe shall be located [two (2)] 2 inches above the invert of the outlets to each distribution line.

E. Baffle. Every distribution box shall have a baffle OR SIMILAR DEVICE, ACCEPTABLE TO THE APPROVING AUTHORITY at least [six (6)] 6 inches high and extending two-thirds [(2/3)] across the bottom with equal open spaces between ends of baffle and side walls of the box. The baffle shall be firmly set on the bottom of the box, shall be placed at right angles to the direction of the incoming flow and shall be placed a minimum of [six (6)] 6 inches from the inlet.

F. Connections. The distribution box shall be connected to the septic tank or other treatment device by [a four-inch cast-iron] approved [plastic] pipe with a watertight seal at both ends.

A watertight four-inch solid pipe shall be used to convey the septic effluent from the distribution box to the absorption [area] SYSTEM. All connections to the distribution box shall be sealed to prevent any seepage from the box. IF MORE THAN 1 OUTLET PORT IS UTILIZED, THE FLOW SHALL BE BALANCED BY THE USE OF LEVELERS. All UNUSED outlet ports [not used]

1 shall be properly [plugged and] sealed [with concrete to the wall thickness of the box].

2 **§ 216-[24]22. Disposal field.**

3 A. Minimum standards. The minimum standards for the construction of all subsurface
4 drainage disposal systems shall be shown in Table [IV] III.

5 B. Size and requirements. Size requirement for subsurface drainage disposal systems
6 shall [conform with Tables III and IV.] BE IN ACCORDANCE WITH:

7 (1) LOADING RATES: MAXIMUM LOADING RATES FOR INDIVIDUAL
8 RESIDENCES, COMMERCIAL ESTABLISHMENTS AND INSTITUTIONAL
9 ESTABLISHMENTS USING STANDARD TRENCH, DEEP TRENCH OR SEEPAGE PIT
10 DISPOSAL TECHNIQUES WITH AN ACCUMULATIVE PEAK FLOW LESS THAN 5,000
11 GALLONS PER DAY:

| 12 | PERCOLATION RATE | MAXIMUM LOADING RATE |
|----|------------------------|-----------------------|
| 13 | (IN MINUTES FOR 1 INCH | (GALLONS/ DAY/SQ.FT.) |
| 14 | DROP AFTER PREWETTING) | |

| | | |
|----|-----|----|
| 15 | 2-5 | .9 |
|----|-----|----|

| | | |
|----|------|----|
| 16 | 6-10 | .8 |
|----|------|----|

| | | |
|----|-------|----|
| 17 | 11-15 | .7 |
|----|-------|----|

| | | |
|----|-------|----|
| 18 | 16-20 | .6 |
|----|-------|----|

| | | |
|----|-------|----|
| 19 | 21-25 | .5 |
|----|-------|----|

| | | |
|----|-------|----|
| 20 | 26-30 | .4 |
|----|-------|----|

21 (2) ABSORPTION AREA FOR STANDARD TRENCHES, DEEP DISPOSAL
22 TRENCHES OR SEEPAGE PITS (SEE BELOW).

(3) FLOW

(a) FOR RESIDENTIAL USE, 150 GALLONS PER DAY PER
POTENTIAL BEDROOM SHALL BE USED AS THE MINIMUM DESIGN FLOW.

(b) FOR COMMERCIAL, INDUSTRIAL OR INSTITUTIONAL
ESTABLISHMENTS, THE APPROVING AUTHORITY MAY APPROVE DESIGN FLOWS
BASED UPON ACTUAL FLOW MEASUREMENTS OR ESTIMATED FLOWS FOR SQUARE
FOOTAGE OR PLUMBING FIXTURES DEVELOPED FOR SIMILAR ESTABLISHMENTS. IN
NO INSTANCE SHALL DESIGN FLOW BE LESS THAN 400 GALLONS PER DAY.

C. [Disposal trenches, shallow or deep, shall be designed and constructed on the basis of
the percolation test and the required effective absorption area approved by the Health Department.]

Each disposal trench shall be connected by a watertight line from the distribution box to the trench.

[There shall be a minimum of six (6) feet of solid ground between the distribution box and the
beginning of the trench.] No disposal trench shall be subdivided. [Pressure systems using force
pumps shall be of the manifold type from the dumping chamber to the distribution box or boxes.]

D. Filter material. The filter material shall not be less than [twelve (12)] 12 inches in
depth below the drain [tile] PIPE and shall extend the full width of the trench. After installation of
the drain [tile] PIPE, additional filter material shall be placed surrounding and over the drain [tile]
PIPE to a depth of not less than [two (2)] 2 inches. Filter material shall consist of washed gravel,
crushed stone or like materials ranging in size from one-half [$(\frac{1}{2})$] inch to two and one-half [$(2\frac{1}{2})$]
inches in diameter and free of all fines, dust, ashes, clay and other debris.

E. Filter material cover. Filter material cover may consist of hay, straw, red resin, GEO
TEXTILE FABRIC or building paper with width and length of the trench. Asphalt-treated paper

1 shall not be used.

2 F. Backfill material. Backfill material shall be select earth fill and shall be free of clay
3 inert.

4 G. [Deep disposal trenches. Deep disposal trenches may vary from four (4) feet in depth
5 to about fourteen (14) feet in depth. The standard depths are eight (8) feet, ten (10) feet and twelve
6 (12) feet. The trench filler material (see Subsection D above) is used from just above the level of the
7 pipe to the bottom of the trench. A typical ten-foot trench would consist of eight (8) feet of crushed
8 stone; perforated pipe or tile (see Subsection H below) is located in the top two (2) inches of stone
9 covered by a filter material cover (see Subsection E above) and the back fill material (see Subsection
10 F above).] STANDARD TRENCHES: ABSORPTION AREA FOR STANDARD TRENCH IS
11 DETERMINED BY ACCEPTABLE BOTTOM AREA ONLY. THE LENGTH OF TRENCH
12 REQUIRED IS DETERMINED UTILIZING THE FOLLOWING FORMULA:

13
$$(f \div 1) \div w = \text{LENGTH OF TRENCH}$$

14 WHERE f = MAXIMUM DAILY FLOW

15 1 = LOADING RATE

16 w = THE WIDTH OF TRENCH IN FT.

17 H. [Tile field shall be constructed of standard sections of perforated plastic pipe or other
18 approved materials. The perforated pipe shall be installed in such a manner that the holes will be
19 downward at the four-o'clock and eight-o'clock positions. Disposal field trench bottom and tile and
20 pipe shall have a maximum slope of four (4) inches per one hundred (100) feet of trench length (see
21 Subsections D, E and F above).] DEEP DISPOSAL TRENCHES: ABSORPTION AREA FOR A
22 DEEP TRENCH SYSTEM IS DETERMINED BY THE ACCEPTABLE BOTTOM AREA AND

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1 THE DEPTH OF USABLE SIDE WALL AREA ON THE BASIS OF PERCOLATION TESTS,
2 OBSERVATION OF THE SOIL PROFILE AT VARIOUS SOIL DEPTHS AND OTHER
3 HYDROGEOLOGIC DATA, AS MAY BE REQUIRED BY THE APPROVING AUTHORITY.
4 THE LENGTH OF DEEP TRENCH REQUIRED WILL BE BASED ON THE FOLLOWING
5 METHOD:

6 (1) CALCULATE THE LENGTH OF STANDARD TRENCH.

7 (2) CALCULATE THE PERCENT OF LENGTH OF STANDARD TRENCH
8 UTILIZING THE FOLLOWING FORMULA:

9
$$[(w+2) \div (w+1+2d)] \times 100$$

10 WHERE w = WIDTH OF TRENCH IN FEET

11 d = DEPTH OF GRAVEL IN ABSORPTIVE MATERIAL BELOW
12 DISPOSAL PIPE IN FEET

13 (3) MULTIPLY THE STANDARD TRENCH LENGTH BY THE PERCENT OF
14 LENGTH OF STANDARD TRENCH.

15 I. Seepage pit [(dry well)]. ABSORPTION AREA FOR A SEEPAGE PIT IS BASED
16 UPON THE DEPTH OF THE SEEPAGE PIT IN ABSORPTIVE MATERIAL ~~AND THE~~
17 ~~BOTTOM AREA.~~ CALCULATE AVAILABLE ABSORPTIVE AREA BASED ON
18 PERCOLATION AND OTHER SITE DATA USING THE FOLLOWING FORMULA:

19 $\pi d h + \pi^2 \frac{d^2 h}{4} = \text{THE ABSORPTIVE AREA OF A SEEPAGE PIT}$

20 WHERE $\pi = 3.14$

21 d = DIAMETER OF THE RING (PREFAB CONCRETE STRUCTURE)

22 (d IS TYPICALLY 6, 8, OR 9 FEET)

h = DEPTH OF ABSORPTIVE MATERIAL

~~r = RADIUS OF THE RING~~

THE AVAILABLE ABSORPTIVE AREA IN THE SEEPAGE PIT IS MULTIPLIED BY THE APPROPRIATE LOADING RATE TO OBTAIN THE ABSORPTIVE CAPACITY IN GALLONS. IF THE SEEPAGE PIT IS INADEQUATE IN SIZE BASED ON THE MAXIMUM DESIGN FLOW, THE PROPOSED DESIGN WILL HAVE TO BE MODIFIED BY EITHER INCREASING THE NUMBER OF SEEPAGE PITS, INCREASING THE DIAMETER OF THE SEEPAGE PIT OR A COMBINATION. THE COMBINED ABSORPTION AREA FROM ALL SEEPAGE PITS MUST EQUAL OR EXCEED THE DESIGN FLOW.

(1) Seepage pit. Seepage pits may be used when approved by the Health Department either to supplement the subsurface disposal field or in lieu of such disposal field where soil conditions and topography favor the operation of such pits. The minimum standards for the construction of seepage pits shall be shown in Table [VI] III.

(2) Size. The capacity of a seepage pit is to be computed on the basis of [an approved percolation test in accordance with requirements as specified in §216-21A. The dimensions specified are the inside block wall diameter under the inlet pipe. See Table V.]

LOADING RATE AND ABSORPTION AREA BASED ON PERCOLATION TESTS AND SITE DATA.

[(3) Seepage pit construction. Pits are to be circular in plan. The vertical wall of nondrilled pits shall be lined with eight-by-eight-by sixteen cinder, slag, concrete blocks or other approved materials, laid up dry with open joints from the bottom to the inlet pipe. The core of the block shall be in the vertical position. The joints above the inlet pipe to the cover shall be sealed with

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mortar cement. Where two (2) or more dry wells are used, the separation shall be a minimum of three (3) times the diameter of the largest dry well.]

[(4)] (3) Filter material. The annular space between the original soil and the [vertical block wall of the nondrilled dry well] RINGS shall be filled with AN APPROVED filter material. [of either washed gravel, crushed stone or like material that has been approved. This material shall extend from the bottom of the pit to the bottom of the inlet pipe. This paragraph does not apply to bored seepage pits where the block fits tightly against the sidewall.]

[(5)] (4) For filter material cover, see Subsection E above.

[(6)] (5) For backfill material, see Subsection F above.

[(7)] (6) Seepage pit cover. A reinforced concrete cover a minimum of [five (5)] 4 inches in thickness shall be required. A six-inch diameter hole shall be provided to accommodate a six-inch [iron, steel or appropriate] APPROVED CLEANOUT [plastic] pipe.

[(8)] (7) Seepage pit cleanouts. The cleanout shall extend to finish grade and be provided with a tight-fitting cap.

J. SAND MOUNDS: SAND MOUND SYSTEMS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.02.

§ 216-[25]23. Alternate methods of effluent disposal.

In any instance where sewage effluent from an individual waste disposal system is to be discharged onto the surface of the ground or into the waters of the state, final approval of the proposal, including the issuance of a point of discharge, shall be subject to the policies of the Maryland State Department of ~~Health and Mental Hygiene~~ THE ENVIRONMENT.

A. THE DEPARTMENT OF THE ENVIRONMENT AND THE APPROVING

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1 AUTHORITY SHALL CONSIDER ALL POSSIBLE METHODS FOR CORRECTING EXISTING
2 SYSTEM FAILURES AND PROVIDING FACILITIES FOR HOMES WHICH LACK INDOOR
3 PLUMBING AND, BASED ON A CASE BY CASE EVALUATION, PROVIDE THE BEST
4 TECHNICAL GUIDANCE IN ATTEMPTING TO RESOLVE EXISTING POLLUTION OR
5 PUBLIC HEALTH PROBLEMS. WHEN A PUBLIC SEWER IS NOT AVAILABLE AND A
6 CONVENTIONAL ON-SITE SYSTEM DESIGN CANNOT ALLEVIATE THE PROBLEM OR
7 DOES NOT PROVIDE THE BEST METHOD OF CORRECTION, INNOVATIVE OR
8 ALTERNATIVE TECHNOLOGY MAY BE USED.

9 B. ALTERNATIVE TECHNOLOGY MAY ALSO BE USED FOR NEW
10 CONSTRUCTION. THE USE OF NON-CONVENTIONAL ON-SITE SEWAGE DISPOSAL
11 SYSTEMS ON NEW CONSTRUCTION WHERE SITE LIMITATIONS PRECLUDE THE USE
12 OF CONVENTIONAL ON-SITE DISPOSAL SYSTEMS SHALL BE REVIEWED AND
13 APPROVED USING PROFESSIONAL JUDGEMENT. THE SOIL PROPERTIES AND
14 GROUND WATER CONDITION AT THE PROPOSED SITE SHALL DEMONSTRATE
15 ADEQUATE SUPPORT FOR SUCCESSFUL USE OF THE PROPOSED SYSTEM AS AN
16 ALTERNATIVE TO CONVENTIONAL ON-SITE SEWAGE DISPOSAL SYSTEM.

17 C. NON-CONVENTIONAL ON-SITE SEWAGE DISPOSAL SYSTEMS MAY NOT
18 BE CONSIDERED AS ACCEPTABLE ON-SITE SEWAGE DISPOSAL SYSTEMS WITH
19 REGARD TO THE SUBDIVISION OF LAND PURSUANT TO COMAR 26.04.03.

20 D. HOLDING TANKS.

21 (1) MAY BE USED FOR RE-CONSTRUCTION OF STRUCTURES WHEN
22 COMMUNITY SEWER FACILITIES ARE NOT AVAILABLE AND ON-SITE REPAIR IS NOT

POSSIBLE, ONLY IF THE STRUCTURE WAS LEGALLY SITUATED AND LEGALLY OCCUPIED WITHIN 3 YEARS OF THE DATE OF APPLICATION. IN NO CASE SHOULD THE RECONSTRUCTION RESULT IN AN INCREASE IN SQUARE FOOTAGE OR ESTIMATED DAILY SEWAGE FLOW TO THE PROPOSED STRUCTURE COMPARED TO PROVEN HISTORICAL USE. A VARIANCE TO THE 3 YEAR LIMITATION MAY BE GRANTED ON A CASE BY CASE BASIS IN CONSIDERATION OF THE FOLLOWING:

(a) THE PROPOSED STRUCTURE IS TO BE OWNER-OCCUPIED.

(b) THE OWNER CAN DEMONSTRATE A HISTORICAL USE AND OCCUPATION THAT WAS INTERRUPTED BY EVENTS BEYOND THE CONTROL OF THE EXISTING AND PAST OWNERS.

(c) THE OWNER CAN DEMONSTRATE THAT IN THE PAST THE PROPERTY OBTAINED APPROVALS FOR AN ON-SITE SEWAGE DISPOSAL SYSTEM OR HOLDING TANK FROM THE APPROVING AUTHORITY.

(d) THE STRUCTURE IN QUESTION IS TO BE THE ONLY STRUCTURE LOCATED ON THE PROPERTY.

(2) HOLDING TANKS SHALL BE SIZED TO HOLD A MINIMUM OF 7 DAYS' EFFLUENT AND SHALL BE OF WATERTIGHT CONSTRUCTION. THE CONTENTS SHALL BE REGULARLY REMOVED AND DISPOSED OF IN ACCORDANCE WITH HARFORD COUNTY REQUIREMENTS. A HIGH EFFLUENT LEVEL ALARM SYSTEM SHALL BE REQUIRED ON ALL HOLDING TANKS. ADEQUATE ACCESS MUST BE MADE AVAILABLE TO ALLOW FOR PUMP-OUTS ON A REGULAR BASIS.

(3) THE APPLICANT SHALL SUBMIT, ALONG WITH THE APPLICATION,

1 A MAINTENANCE CONTRACT ACCEPTABLE TO THE APPROVING AUTHORITY WHICH
2 SHALL INCLUDE AN ACCEPTABLE PUMPING SCHEDULE BETWEEN THE APPLICANT
3 AND AN APPROVED LIQUID WASTE HAULER. COPIES OF ALL PUMPING RECEIPTS
4 ARE TO BE MADE AVAILABLE TO THE HEALTH DEPARTMENT UPON REQUEST.
5 UPON CANCELLATION OF THE CONTRACT, THE HAULER AND THE OWNER ARE
6 JOINTLY RESPONSIBLE FOR NOTIFYING THE HEALTH DEPARTMENT.

7 (4) THE APPLICANT SHALL SIGN AN AGREEMENT WITH THE
8 APPROVING AUTHORITY CONTAINING THE ABOVE CONDITIONS. THE AGREEMENT
9 SHALL RUN WITH THE PROPERTY AND BE BINDING ON ALL FUTURE OWNERS OF THE
10 PROPERTY.

11 **§ 216-[26]24. Privies AND CHEMICAL TOILETS.**

12 [New privies can be approved where conditions prohibit under-ground sewage disposal for
13 structures with intermittent, temporary or seasonal use. They will not be approved for new buildings
14 with permanent full-time occupancy. Any new privies or rebuilt existing privies require a sanitary
15 construction permit and, when constructed, must be inspected and approved by the approving
16 authority.]

17 A. PRIVIES: PRIVIES WILL NOT BE APPROVED FOR NEW CONSTRUCTION
18 EXCEPT AT THE DISCRETION OF THE HEALTH OFFICER.

19 B. CHEMICAL TOILETS: CHEMICAL TOILETS MAY BE USED AS A METHOD
20 OF SEWAGE DISPOSAL UNDER THE FOLLOWING CONDITIONS:

21 (1) FOR A TEMPORARY EVENT NOT TO EXCEED 14 DAYS.

22 (2) BUILDING CONSTRUCTION SITES DURING CONSTRUCTION.

(3) AT THE DISCRETION OF THE APPROVING AUTHORITY, OTHER SITUATIONS MAY BE ALLOWED ON A TEMPORARY BASIS.

(4) CHEMICAL TOILETS MUST BE MAINTAINED AND EMPTIED AS NECESSARY BY A LICENSED LIQUID WASTE HAULER TO PREVENT A SEWAGE DISPOSAL NUISANCE.

(5) THE REQUIREMENTS OF THIS CHAPTER DO NOT PRECLUDE OR LIMIT MODIFICATIONS TO SYSTEM DESIGN OR INSTALLATIONS AS DEEMED APPROPRIATE BY THE APPROVING AUTHORITY.

Article III. Administration and Enforcement

§ 216-[27]25. Variances.

Provision for flexibility in certain engineering design criteria necessitated by unusual topographic and soil circumstances or select changes in design may be accomplished on written approval of the approving authority.

§ 216-[28]26. Violations and penalties.

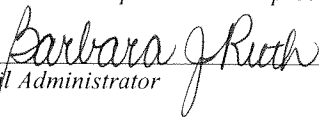
Any person found guilty of violating any provision of this chapter shall be deemed guilty of a misdemeanor and shall be fined not less than [fifty dollars (\$50.)] \$50 and not more than [two hundred fifty dollars (\$250.)] \$250, and every day that such violation exists shall constitute a separate offense and be punishable as such hereunder.

Section 2. And Be It Further Enacted that this Act shall take effect 60 calendar days from the date it becomes law.

EFFECTIVE: November 14, 2003

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As Amended

The Council Administrator does hereby certify that fifteen (15) copies of this Bill are immediately available for distribution to the public and the press.



Council Administrator

BILL NO. 03-31
As amended

HARFORD COUNTY BILL NO. 03-31aa

Brief Title Sewage Disposal Systems, Private

is herewith submitted to the County Council of Harford County for enrollment as being the text as finally passed.

CERTIFIED TRUE AND CORRECT

Barbara J. Ruth
Council Administrator

Date September 9, 2003

ENROLLED

Robert S. Hagan
Council President

Date September 9, 2003

BY THE COUNCIL

Read the third time.

Passed: LSD 03-23

Failed of Passage: _____

By Order

Barbara J. Ruth
Council Administrator

Sealed with the County Seal and presented to the County Executive for approval this 11th day of September, 2003 at 3:00p.m.

Barbara J. Ruth
Council Administrator

BY THE EXECUTIVE

James M. Harkins
COUNTY EXECUTIVE

APPROVED: Date 9-15-03



BY THE COUNCIL

This Bill No. 03-31 As Amended, having been approved by the Executive and returned to the Council, becomes law on September 15, 2003.

EFFECTIVE: November 14, 2003

Barbara J. Ruth
Barbara J. Ruth, Council Administrator

BILL NO. 03-31
As amended